

# REGIONAL DIVERSITY IN THE IBERIAN BRONZE AGE - ON THE VISIBILITY AND OPACITY OF THE ARCHAEOLOGICAL RECORD\*

by

Susana Oliveira Jorge\*\*

## INTRODUCTION

It is currently accepted by most archaeologists dealing with the Iberian Bronze Age, that a phenomenon of growing social complexity can be observed throughout this period. Regional diversities notwithstanding, this phenomenon is displayed through the progressive increase of certain general processes which, according to the functionalist/processualist terminology, are those of intensification of production, interaction, social hierarchization and social-political integration (Chapman, 1991). Within this global phenomenon, spatial and temporal diversity, cultural assymetries, different rhythms of regional complexity, are to be admitted. Even “involutions”, which are seen to occur within certain areas (Gilman, 1987b), are considered to be ephemeral and geographically limited set-backs within ineluctable social complexity. Those regional diversities mentioned above are envisaged as local adaptations in consequence of a wide range of conditions, such as: the specific environment and available resources; different cultural backgrounds; the manifold communitary interactions and supra-regional interdependence mechanisms; etc. They influence each group's trajectory and shape the processes of cultural complexity on a regional scale (Gilman, 1987a, b, Chapman, 1991, Dias-Andreu, 1993). Clearly, functionalist/prócessualist indicators of intensification, interaction, hierarchization and integration processes are quite hard to quantify in the so-called archaeological record. This is mainly due to the fact that they are liable to assume quite variable material configurations. Therefore, their identification depends on the correlation of different

---

\* This paper was presented to the London Conference on “The Identity of Bronze Age Europe”, which took place in the British Museum, October 1994 (the proceedings will not be published).

\*\* Institute of Archaeology, Faculty of Arts, University of Porto, Portugal.

1991). One of the classic indicators of such cultural complexity would be the emergence in both areas of fortified settlements from the middle of the third millennium b. C. on. These fortified settlements are seen to be closely related to copper metallurgy, to the building of false-vault tombs, and to the manufacturing of some prestige artefacts. Despite the different colonial and autochtonist explanations (vd. Hernando Gonzalo, 1988, Martinez Navarrete, 1989), which see these innovations as the result, respectively, of migrations of population from the East Mediterranean, or of internal changes, fortified settlements have always been regarded as locations with defensive, deterrent and sumptuous functions. Basically, they reflect conflicts: either between colonists and natives (colonial account), or between local communities in their need to assert territorial claims (autochtonist account). In either of these explanatory trends, the fortified settlement is taken as the overpowering indicator of a given level of social-political development. To the functionalist/processualist, the fortified settlement is the individual sign of general, underlying, aprioristic processes such as “intensification”, “differentiation”, “competition/interaction” or “complexity”, which it only serves to illustrate.

I have recently re-evaluated the Iberian Chalcolithic, by taking the concept of “fortified settlement” as a main reference point in the analysis of this period (Jorge, forthcoming). To this purpose, two issues have been focused on: the spatial-temporal restriction of the “fortified settlements” to the classical areas and their peripheries (South-east Spain and Portuguese Estremadura); the correlation of these sites to the processes deriving from social complexity. The latter seemed to be a crucial one, at first, since the possible deconstruction of the unified character of the concept of “fortified settlement” would question the homogeneizing character of the different “processes” that would equally well have given rise to it. In fact, even before scrutinizing the available data, it seemed clear that chalcolithic “fortifications” were basically places where energy and technological knowledge had been invested. In this sense, they might appear as general indicators of social organization and leadership. But since these two aspects haven’t been sufficiently contextualized, it turned out that resorting to labels such as “intensification” or “social complexity” in order to grasp the plural reality which is expressed in those places was rather useless.

I have analysed about 70 sites (predominantly dating to the second half of the third millennium b. C. - uncalibrated C14 dates) scattered throughout a wide area: South-east, South-west, Portuguese Estremadura, the Northern Meseta and it’s western periphery. The following items concerning each one of the sites have been examined: spatial-temporal features; architectural types; settings for the use of domestic spaces; spatial-temporal relationships to culturally linked burial contexts; levels of visibility/ monumentality; etc. The results of this research have

hierarchized or not centralized politically, required the boundaries to be much more clearly delimited, the spaces to be enhanced, the routes to be marked, the accesses to be controlled, spatial interdictions to be imposed, spatial possibilities to be expressed. This new management called for a new kind of power which was inscribed in space, thus shaping the very perception of the territory. The enclosed settlements of the second half of the third millennium b. C., despite the constellation of contextual relations they have been linked to, reproduced locally a new pattern of "belonging to", new perceptions, both individual and collective, of the social world. It must be stressed that this movement - occurring during the strengthening of the "second agricultural revolution" (Vicent, 1989) - is quite embracing in all of the Peninsula. As symptom of a "meta-regularity", a new way of comprehending the territory, the enclosed settlements appear from Almeria, in the South-east of the Peninsula, up to the Douro basin, in the North (vd. in this second area the settlements of Castelo Velho and El Pedroso). What I have postulated in 1986 concerning a restricted area in northern Portugal (Jorge, 1986), can also be found when one observes the North of the Peninsula, and, particularly, the provinces of Trás-os-Montes e Alto Douro, Zamora and Salamanca: the increase in intensive agricultural production and the emergence of permanent settlement from the middle of the third millennium b.C. onwards (Jorge, 1992). Those researchers who would like simply to reject this, in order to back up the thesis that permanent settlement would have taken place from the Late Bronze Age only (Ruiz-Gálvez, 1991/1992a, Fabião, 1992) should reflect upon important indicators of a growth in production recognized in chalcolithic settlements which have been published, such as Las Pozas, Zamora (Val Recio, 1992, Morales Muñiz, 1992), Buraco da Pala, Mirandela (Sanches, 1987, 1989, Sanches *et alii*, 1993), or Castelo Velho, Vila Nova de Foz Côa (Jorge, 1993). As far as permanent settlement is concerned, it may involve several ways of manipulating the landscape, and it does not necessarily have to express itself through enduring domestic structures. This means that permanent settlement can be made invisible on a superficial approach. Nevertheless, it is an indisputable phenomenon at least as far as walled settlements, such as Castelo Velho and El Pedroso (already mentioned above), S.Lourenço, Chaves (Jorge and Santos, forthcoming), and other still unpublished sites in the North of Portugal, in the province of Trás-os-Montes e Alto Douro (Jorge, 1993), are concerned.

How can the analysis of chalcolithic settlements throw light upon this matter? In fact, visibility of so-called "fortified settlements" leads us to quite a large scale process: territorialization handles such high level "meanings" that a wide range of social formations may be hidden with them. While accommodating to a low density of occupation of the territory, these social formations may integrate several ways and degrees of economic intensification, diverse possibilities of social

And, consequently, to reflect once more on the concept of social complexity.

If one observes the standard processualist methodology - correlation of a restricted number of variables - and looks for the classic indicators of those variables in the peninsular archaeological record, one is confronted with the following picture: during the Early and Middle Bronze Age, “fortified settlements” in the chalcolithic tradition are still to be found in areas outside the South-east. These are some of the published examples: in the basin of the river Douro, the settlement of Castelo Velho (Jorge, 1993); in the portuguese Estremadura the settlement of Zambujal (phase 5) (Sangmeister and Schubart, 1981); in the south of the Northern Meseta several enclosed settlements of this period are known (Fabián García, 1993); in the Alto Guadalquivir the Early Bronze Age “fortified settlement” of Peñalosa (Contreras Cortés, 1995) is, after all, a site with features characteristic of the Argaric periphery. In the La Mancha region, the groups of Motillas (Martín *et alii*, 1993) belong to an area of interaction with the Argaric world. However, if one leaves the peripheral areas of the South-east, whose “fortified settlements” could be interpreted as resulting from the proximity to the Argaric community, and if one resorts to data which are mostly still unpublished<sup>2</sup>, one comes to the conclusion that throughout this period fortifications continue to appear in almost all of the Peninsula, even if they are less frequent. On the other hand, in some open settlements a few traces have been identified which indicate that there had been an *increase of production*. This would have taken place within the process conventionally known as “S.P.R.” (Sherratt, 1981, 1983). One can present as examples settlement with *storage structures* (early phase) of Bouça do Frade, in the North of Portugal (Jorge, 1988), which might have been occupied for the first time in the 16 th century b. C. in a proto-Cogotas context<sup>3</sup>; and the settlement of Agroal, in the Portuguese Estremadura (Lillios, 1993). Harrison (1993) has recently maintained that the use of pastoralism would have been crucial during the second millenium b. C.. In fact, he argues that livestock raising and horse riding would have been part of a strategy of economic intensification just as effective as the mediterranean polyculture used in the South-east.

But other indicators of complexity also appear which are traditionally considered to be evidence of power: for instance, *stellae* in such different provinces as Trás-os-Montes e Alto Douro - the Longroiva stella (Almagro-Bash, 1966) - and Alentejo - the well-known “stellae of Alentejo”, if one accepts the chronology

---

<sup>2</sup> Several archaeological survey programmes are now taking place in different areas in the Peninsula, namely in portuguese territory. When these are published, the traditional views according to which settlement in the second millenium b. C. is scarce, will have to be altered.

<sup>3</sup> There are unpublished C 14 datings concerning the first occupation of this settlement, which, from the start (at least 16th century b. C.) reveals storage pits. These data are the result of excavations which occurred from 1987 until 1990, and they are still unpublished.

façade, one is confronted with communities which, their degree of social hierarchization notwithstanding, produce, transform and exchange metal, possibly within low grids of supra-regional exchange. Such exchange grids enabling the circulation of metallic prototypes along most of the European Atlantic façade promote a socially diversified use of metallic artefacts. Thus, they favour the cutting off of metallic artefacts from regional symbolism and dispose the traditional economies towards a “proto-currency” sphere (Sherratt, 1994) which became characteristic of the Late Bronze Age. A great number of societies within the Iberian Peninsula, whatever their resemblances in respect of leadership capability of their elites, seem to be socially more open and less competitive than those of the South-east during the period I have been considering. But rather than establishing that the nature of this difference is that of social complexity, it seems that it is an organizational difference which calls for research within an other perspective altogether.

### **3. LATE BRONZE AGE, 1300 - 700 b. C.**

Researchers who have been studying the Late Bronze Age in the Peninsula have recurrently declared both the progressive concealment of burial contexts, and the relative instability in land occupation, and, consequently, the difficult recognition in the archaeological record of domestic contexts. On the other hand, almost every archaeologist has emphasized the increase in a new kind of social/ritual settings - stellae/statue-menhirs and hoards of metallic artefacts - as ostentatious signs for a new social and political order.

I shall now briefly review some material evidence that has been presented to support these statements (tombs, settlements, stellae/statue-menhirs and hoards), so as to discuss the meaning of their absence/presence within a possible rearrangement of the processes of territorialization in the Peninsula.

If one happens to read some of the most recent publications on the peninsular Late Bronze Age, one may be persuaded that almost no tombs are known. And this is due to three main reasons: because those that have been taken as such were not, after all, correctly identified, both chronologically and culturally; because such tombs, being unsubstantial, haven't been recognized in the so-called archaeological record; or, finally, because they were never built (Ruiz-Gálvez, 1991, Belén *et alii*, 1991). The idea underlying this denial seems to be that of integrating the Iberian Peninsula into an Atlantic community whose affinities would go far beyond the links originated by exchange routes: united by burial concealment, the Atlantic façade would share the same sphere of social and

Tapado da Caldeira as a cemetery, have been repeatedly disputed by some Spanish colleagues (Ruiz-Gálvez, 1991, Ruiz-Gálvez and Galan Domingo, 1991, Belén *et alii*, 1991). However, any one of these cemeteries, particularly Tapado da Caldeira, presents strong contextualized indicators for its function and chronology. The cemetery of Tapado da Caldeira consists of four rectangular pits. Their inner filling was found intact and was composed of layers of compact soil mixed up with a little charcoal. A complete vessel was found at each extremity of each one of these pits. One of these pits was dated by radiocarbon around 13th century b. C. The probability of this date is supported by the presence of a “Cogotas I” type vessel in another pit. On the other hand, the interpretation of these pits as tombs follows standard archaeological criteria: firstly, one is dealing with untouched pits; secondly, these pits can be compared with similar stone graves, as far as shape and size are concerned; thirdly, their filling (soil, charcoals and a complete vessel in every pit), even though it does not include bones, which is very frequent due to the acid soils in this area, follows the normal pattern of a closed and homogeneous burial association. One must add that one of the pits presented a convenient size to the inhumation of a child together with a small vessel. The simple attribution of ritual functions to these pits surprises me, since no additional valid arguments are presented (Ruiz-Gálvez, 1991:282). If one puts aside the fact that no human bones have been found, which occurs in almost every tomb of every period, these pits have all the features that are common to individual inhumation graves. This does not, of course, prevent one from accepting that the cemetery and its surrounding area could have been used from the start to create settings related to diversified ritual practices.

Even though it hasn't recently been excavated according to up-to-date scientific methods, the cemetery of cists at S. Paio de Antas has revealed human skeletons together with ceramic vessels, namely some of specific peninsular North-west type, which are characterized by their large horizontal rim. It is through the presence of these vessels that one is able to infer the general chronology of these cists. In fact, such pottery has been found in the settlement of Bouça do Frade, also in the north of Portugal (Jorge, 1988) from, at least, the intermediate stage of occupation until the end (12th/11th - 8th century b. C.). This means that the cists can be placed within this period although no precise chronology can be obtained.

In both, Tapado da Caldeira and S. Paio de Antas, one is dealing with flat graves.

The well known monument of Roça do Casal do Meio, located in the Portuguese Estremadura and dated around the 10th/9th century b. C. (Spindler and Ferreira, 1973), with its monumental structure presents already not only a remarkable architectonic complexity, but also a burial pagentry with a mediterranean ring. Regardless of the debate concerning the “proto-oriental”

1991, 1992a, Fabião, 1992, Galan Domingo, 1993).

When considering the Peninsula as a whole, one observes an immense variety of domestic contexts and settlement patterns. On the other hand, settlements with natural or artificial defences appear at a late stage in this period and are in the minority. Open settlements predominate, with perishable dwelling structures made out of wood and clay (Jorge, 1990). This is the case of the settlement with storage structures at Bouça do Frade in the north of Portugal (Jorge, 1988). It is a long-lived open settlement (from, at least, the 16th to the 8th century b. C.) which must have been continuously occupied by groups surviving on an intensive economic system based upon agriculture and livestock raising. The underground storage structures, some of which are quite large, are an unequivocal proof of this. The suggestion that the settlement of Bouça do Frade could be inserted in an itinerant settlement model simply because its dwelling structures are perishable, can only be the result of misunderstanding and confusion. As for the misunderstanding, it has already been mentioned: the simplistic correlation of archaeological invisibility (in this particular case, of domestic remains) with social fluidity, mobility or instability. The confusion consists of equating the permanent occupation of a given place with the permanent and organized exploitation of a territory. The continuous occupation of Bouça do Frade during almost 800 years is obviously connected with spatial-temporal occupation strategies of the surrounding territory. The exploitation regime of this territory is not, however, to be inferred from the continuity or disruption in the occupation of a site; rather continuity or disruption can both be observed either in sedentary or itinerant systems. The “permanent” occupation of a given territory cannot be checked by the durability of some domestic structures only, or their continuous use. It is verified by the correlation of several variables, such as economic intensification and specialization.

At this point, one must ask the question: should settlements such as Bouça do Frade (which is an open settlement containing storage structures), or Alegrios (Vilaça, 1991) and N. Sra. da Guia, Baiões (Kalb, 1979) (the latter are hill-top settlements with evidence of metalworking activities) be seen as part of itinerant networks of territorial occupation, solely because of their feeble internal structures?

It seems clear to me that systems of occupation and perception of the territory by Late Bronze Age groups have not as yet been sufficiently studied. Actually, the general perishable character of domestic structures often coexists with traces of specialized productive activities which are closely related to those structures. This is not consistent with the proclaimed fluidity and instability of settlement during the Late Bronze Age (vd. Shennan, 1993).

Finally, one should attempt to include the Late Bronze Age “fortified settlements” in a whole new phenomenon of peninsular territorialization. Such a phenomenon comprehends cross-cultural interactions promoted by contradictory

margin of a core located in the eastern Mediterranean, within an interaction system of “core-periphery-margin” supported by Sherratt (Sherratt, 1993, Galan Domingo, 1993). This new conception maintains that the margin, although not directly dependent on the core, nor competing directly with it, would absorb, in a selective way, elements both of the core and the periphery. Such selective integration of elements culturally strange to the margin, due to the particular interests of the native groups, would trigger a structural change in the meaning of the circulating products and prototypes. Therefore, elements formally connected to the mediterranean world, such as, for instance, the icons engraved upon the southwestern stellae, the burial goods of tombs such as Roça do Casal do Meio, or some metallic artifacts in hoards like Baiões, Villena or Peña Negra, should be understood as native productions with an Atlantic cultural affiliation. These productions appear within cross-cultural exchange networks joining the Mediterranean, the Atlantic façade and Central Europe into a system.

At this point, the discussion concerning local meanings attributed to different kinds of hoards should be introduced (Ruiz-Gálvez, 1993). This archaeologist states that such hoards can be differentiated according to their commercial and/or social/ emblematic value. Following these views, the hoard of Baiões, in the province of Beira Alta, is an utilitarian hoard of commodities conveyed by traders, a kind of “common merchants”, as opposed to the “refined aristocrats” who displayed the prestige objects found at the votive hoards of Peña Negra or Villena, in the South-east (Ruiz-Gálvez, 1993: 58-63). This clear cut opposition calls for a careful analysis which would go far beyond the scope of this paper. I should like to draw attention, however, to a point which has repeatedly been brought out by several authors, including Ruiz-Gálvez (Ruiz-Gálvez, 1992b, Barceló, 1992, Shennan, 1993): the traditional dichotomy between gift and commodity is quite inoperative. In every transaction, objects can assume, successively or cumulatively, both these functions, according to the scale of competition or the nature of the exchanges. If one accepts that the hoards, either utilitarian or votive, are native productions, and that, just as the stellae, they exhibit a transfiguration of the meaning which originally was ascribed to the prototypes, it will be difficult to interpret them without a contextualized research into the societies that produced and used them. I am convinced that this research is still lacking.

I would conclude by saying that the elements of stronger archaeological “visibility” in the peninsular Late Bronze Age - stellae/statue-menhirs and hoards - hide an obvious opacity under a formal similitude to artifacts coming from ideological contexts outside the Peninsula. This is due to the fact that they belong to practically unknown social and cognitive systems.



## BIBLIOGRAPHY

- ALMAGRO-BASH, M. (1966), *Las estelas decoradas del suroeste peninsular*, Madrid, Biblioteca Praehistorica Hispana, VIII
- ALMAGRO-GORBEA, M. (1986), Bronce Final y Edad del Hierro, *História de España*, vol. I, *Prehistoria*, Madrid, Ed. Gredos, pp. 341-471.
- ALMAGRO-GORBEA, M. (1993), Les stèles anthropomorphes de la Péninsule Ibérique, *Les Représentations Humaines du Néolithique à l' Âge du Fer* (115e Cong. Nat. Soc. Savantes, Avignon, 1990), pp. 123-139.
- ARMBRUSTER, B.R. (1993), Instruments rotatifs dans l' orfèvrerie de l' Âge du Bronze de la Péninsule Ibérique. Nouvelles connaissances sur la technique des bracelets du type Villena/Estremoz, *1º Congresso de Arqueologia Peninsular - Actas*, vol. I, Porto, S.P.A.E., pp. 265-283.
- BARCELO, J. A. (1991), El Bronce del Sudoeste y la cronología de las estelas alentejanas, *Arqueologia*, 21, Porto, G.E.A.P., pp. 15-24.
- BARCELO, J. A. (1992), Una interpretación socioeconómica del Bronce Final en el Sudoeste de la Península Ibérica, *Trabajos de Prehistoria*, 49, Madrid, CSIC-CEH, pp. 259-275.
- BARRETT, J. C. (1994), *Fragments from Antiquity. An Archaeology of Social Life in Britain, 2900-1200 BC*, Oxford, Blackwell.
- BELEN, M. *et alii.* (1991), El mundo funerario del Bronce Final en la fachada atlántica de la península ibérica. I. Análisis de la documentación, *Trabajos de Prehistoria*, 48, Madrid, CSIC-CEH, pp. 225-256.
- BLASCO BOSQUED, M. C. (1994), Origen y desarrollo del horizonte Cogotas I en el Alto Tajo, *1º Congresso de Arqueologia Peninsular - Actas*, vol. IV, Porto, S.P.A.E., pp. 151-165.
- BLASCO, M. C. *et alii.* (1991), Enterramientos del horizonte ProtoCogotas en el valle del Manzanares, *Cuadernos de Prehistoria y Arqueologia*, Madrid, UAM, 18, pp. 55-112.
- BRADLEY, R. (1985a), *Consumption, Change and the Archaeological Record. The Archaeology of Monuments and the Archaeology of Deliberate Deposits*, Edinburgh, Univ. Edinburgh - Dep. Archaeol.
- BRADLEY, R. (1985b), Exchange and social distance. The structure of bronze artifact distributions, *Man*, n. s., 20, 4, pp. 692-704.
- BRADLEY, R. (1988), Hoarding, recycling and the consumption of prehistoric metalwork: technological change in Western Europe, *World Archaeology*, 20, 2, pp. 249-260.
- BRADLEY, R. (1990), *The Passage of Arms. An archaeological analysis of prehistoric hoards and votive deposits*, Cambridge University Press.
- BRADLEY, R. (1993), *Altering the Earth. The Origins of Monuments in Britain and Continental Europe*, Edinburgh, Society of Antiquaries of Scotland.
- BRUN, P. (1990), Le Bronze Atlantique et ses subdivisions culturelles: essai de définition, *L' Âge du Bronze Atlantique* (dir. C. Chevillot & A. Coffyn), Beynac, A.M.U.S.A., pp. 11-24.
- CHAPMAN, R. (1991), *La Formación de las Sociedades Complejas. El sureste de la península ibérica en el marco del Mediterráneo occidental*, Barcelona, Ed. Crítica.
- COFFYN, A. (1985), *Le Bronze Final Atlantique dans la Péninsule Ibérique*, Paris, Diffusion de Boccard.
- COMENDADOR REY, B. (1991-92), Los inicios de la metalurgia: primeros testimonios

- GILMAN, A. & THORNES, J. B. (1985), *Land-use and Prehistory in South-East Spain*, London, George Allen & Unwin.
- GOMES, M. V. & MONTEIRO, J. P. (1976-77), As estelas decoradas da Herdade do Pomar (Ervidel - Beja) - estudo comparado, *Setúbal Arqueológica*, vol. II-III, pp. 281-343.
- HARRISON, R. J. (1993), La intensificación económica y la integración del modo de vida pastoril durante la Edad del Bronce, *1º Congresso de Arqueologia Peninsular - Actas*, vol. II Porto, S.P.A.E., pp. 293-299.
- HARRISON, R. J. & MORENO LÓPEZ, G. (1985), El policultivo ganadero o la revolución de los productos secundários, *Trabajos de Prehistória*, Madrid, CSIC-CEH, 42, pp. 51-82.
- HERNANDO GONZALO, A. (1987-88), Interpretaciones culturales del Calcolítico del Sureste español. Estudio de sus bases teóricas, *Cuad. Prehist. Univ. Granada*, nº 12-13, pp. 35-80.
- HERNANDO GONZALO, A. (1989), Inicios de la orfebrería en la Península Iberica, *El Oro en la España Prerromana*, Madrid, Zugarto Ed., pp. 32-45.
- HURTADO PÉREZ, V. & GARCÍA SANJUÁN, L. (1994), Areas funcionales en el poblado de la Edad del Bronce de el Trastejón (Zufre, Huelva), *Arqueología en el Entorno del Bajo Guadiana*, Huelva, G.I.A.P.S., pp. 239-271.
- JORGE, S. O. (1986), *Povoados da Pré-história Recente da Região de Chaves - Vila Pouca de Aguiar*, Porto, Instituto de Arqueologia da Faculdade de Letras.
- JORGE, S. O. (1988), *O Povoado da Bouça do Frade no Quadro do Bronze Final do Norte de Portugal*, Porto, G.E.A.P.
- JORGE, S. O. (1990), chaps. III, IV and V, *Nova História de Portugal* (coord. Jorge de Alarcão), Vol. I - *Portugal. Das Origens à Romanização*, Lisboa, Ed. Presença, pp. 75-251.
- JORGE, S. O. (1991), Idade do Bronze: apontamento sobre a natureza dos dados arqueológicos, *Arqueologia*, 21, Porto, G.E.A.P., pp. 12-15.
- JORGE, S. O. (1992), An approach to the social dynamics of northern Portugal's Late Prehistory, *Institute of Archaeology Bulletin*, 29, London, Inst. of Archaeology, pp. 97-120.
- JORGE, S. O. (1993), O povoado de Castelo Velho (Freixo de Numão, Vila Nova de Foz Côa), no contexto da Pré-história Recente do Norte de Portugal, *1º Congresso de Arqueologia Peninsular - Actas*, vol. I, Porto, S.P.A.E., pp. 179- 216.
- JORGE, S. O. (1995, forthcoming), Colónias, fortificações, lugares monumentalizados. Trajectória das concepções sobre um tema do Calcolítico peninsular, Porto, Fac. Letras.
- JORGE, S. O. & SANTOS, P. M. (1995, forthcoming), O povoado de S. Lourenço (Chaves): 2ª campanha de escavações, *1º Congresso de Arqueologia Peninsular - Actas*, vol. VIII, Porto, S.P.A.E.
- JORGE, V. O. (1989), Arqueologia social dos sepulcros megalíticos atlânticos: conhecimentos e perspectivas actuais, *Rev. da Fac. de Letras do Porto*, IIª sér., História, vol. VI, pp. 365-443.
- JORGE, V. O. (1990), *Arqueologia em Construção*, Lisboa, ed. Presença.
- KALB, PH. (1980), O "Bronze Atlântico" em Portugal, *Actas do Seminário de Arqueologia do Noroeste Peninsular*, vol. I, Guimarães, Soc. M. Sarmiento, pp. 113-120.
- KOHL, P. (1987), The ancient economy, transferable technologies and the Bronze Age world-system: a view from the northeastern frontier of the Ancient Near East, *Centre*

- RUIZ-GÁLVEZ PRIEGO, M. & GALAN DOMINGO, E. (1991), Las estelas del suroeste como hitos de vias ganaderas y rutas comerciales, *Trabajos de Prehistoria*, 48, Madrid, CSIC-CEH, pp. 257-273.
- SANCHES, M. J. (1992), *Pré-história Recente no Planalto Mirandês (Leste de Trás-os-Montes)*, Porto, G.E. A. P.
- SANCHES, M. J. *et alii.* (1993), Buraco da Pala (Mirandela): datas de carbono 14 calibradas e seu poder de resolução. Algumas reflexões, *1º Congresso de Arqueologia Peninsular - Actas*, vol. I, Porto, S.P.A.E., pp. 223-243.
- SANGMEISTER, E. & SCHUBART, H. (1981), *Zambujal - Die Grabungen 1964 bis 1973*, Mainz, Verlag Phillipp von Zabern.
- SCHUBART, H. (1975), *Die Kultur der Bronzezeit in Sudwestern der Iberischen Halbinsel*, Berlin, Walter de Gruyter e Co.
- SCHUBART, H. (n. d.), Consideraciones sobre el Bronce del Sureste peninsular, *Historia de Cartagena*, Ed. Mediterráneo, pp. 221-250.
- SHENNAN, S. J. (1986), Interaction and change in third-millennium B C Western and Central Europe, *Peer Polity Interaction and Social Political Change*, Cambridge University Press, pp. 137-148.
- SHENNAN, S. J. (1987), Trends in the study of Later European prehistory, *Ann. Rev. Anthropol.*, 16, London, Annual Reviews Inc., pp. 365-382.
- SHENNAN, S. J. (ed.) (1989), *Archaeological Approaches to Cultural Identity*, London, Unwin Hyman.
- SHENNAN, S.J. (1993), Commodities, transactions and growth in the Central-European Early Bronze Age, *Journal of European Archaeology*, Aldershot, Avebury, vol. 1.2, pp. 59-72.
- SHERRATT, A. (1981), Plough and pastoralism: aspects of the secondary products revolution, *Pattern of the Past*, Cambridge University Press, pp. 261-306.
- SHERRATT, A. (1983), The secondary exploitation of animals in the Old World, *World Archaeology*, 15, pp. 90-104.
- SHERRATT, A. (1993), What would a Bronze Age world system look like? Relations between temperate Europe and the Mediterranean in Later Prehistory, *Journal of European Archaeology*, Aldershot, Avebury, vol. 1.2, pp. 1-57.
- SHERRATT, A. & SHERRATT, S. (1991), From luxuries to commodities: the nature of Mediterranean Bronze Age trading systems, *Bronze Age Trade in the Mediterranean* (ed. N. H. Gale), Jonsered, Paul Aströms Förlag, pp. 351-386.
- SHERRATT, S. & SHERRATT, A. (1993), The growth of the Mediterranean economy in the early first millennium BC, *World Archaeology*, vol. 24, n° 3, London, Routledge, pp. 361-378.
- SILVA, E. J. L. & CUNHA, A. M. L. (1986), As gravuras rupestres de Monte da Laje (Valença), *Arqueologia*, 13, pp. 143-158.
- SOARES, A. M. & CABRAL, J. M. P. (1993), Cronologia absoluta para o Calcolítico da Estremadura e do Sul de Portugal, *1º Congresso de Arqueologia Peninsular - Actas*, vol. II Porto, S.P.A.E., pp. 217-235.
- SOEIRO, T. (1988), A propósito de quatro necrópoles proto-históricas do concelho de Esposende, *Actas do Colóquio Manuel de Boaventura (1985)*, vol. II-Arqueologia, Esposende, pp. 35-62.
- SPINDLER, K. & FERREIRA, O. V. (1973), Der spätbronzezeitliche kupperbau von der Roça do Casal do Meio in Portugal, *Madriider Mitteilungen*, 14, pp. 60-108.
- STEVENSON, A. C. & HARRISON, R. J. (1992), Ancient forests in Spain: a model for